

REMARKS

After entry of this Amendment, claims 1 through 6 and 11 through 35 remain in the application, with claim 1 in independent form. Claim 1 has been amended, claims 2 through 6 remain unchanged, claims 7 through 10 remain cancelled, claims 11 through 34 remain withdrawn with withdrawn claims 11, 12, 16, 17, 21, and 22 also being amended. Claim 35 has been added.

Claim Amendments and Comments

Claim 1 has been amended merely to clarify the present invention, specifically to clarify orientation of the first and second layers with respect to one another in the silicone-based adhesive sheet of the present invention. Support for this amendment can be found in at least Figures 1 and 2, and paragraph [0033], of the instant specification. Further, claim 35 has been added to clarify differences in curing times of the silicone compositions of the first and second layers, specifically that the slowing curing silicone composition of the second layer typically has a curing time at least five times greater than that of the silicone composition of the first layer, based on the 90% vulcanizing times of the first and second layers at 130°C as specified by JIS K 6300. Support for this amendment can be found in at least paragraphs [0033] and [0051] of the instant specification. As requested in the previous Response, the Applicants respectfully request a rejoinder of claims 11 through 34 upon the allowance of a generic linking claim. As such, claims 11, 12, 16, 17, 21, and 22 have been amended to conform their scope to coincide with the scope of the subject matter of claim 1. No new matter has been added in this Amendment.

Examiner's Claim Interpretations and Rejections - 35 USC §102

Claims 1, 3, 5, and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,658,629 to Delcuve et al. (Delcuve). Claim 1 has been amended, so the §102 rejection is now moot as described below. Specifically, Delcuve fails to teach each and every element of claim 1, as required to properly establish anticipation under 35 U.S.C. §102(b). In addition, relative to any obviousness concerns, Delcuve fails to disclose, teach, or suggest all of the limitations of the present invention as are claimed in claim 1.

To summarize, claim 1 encompasses a silicone-based adhesive sheet. As clarified in this Amendment, the silicone-based adhesive sheet comprises a first layer of a curable silicone composition and a second layer disposed adjacent to and in contact with the first layer. The second layer comprises a slower curing silicone composition than the first layer. In other words, the silicone-based sheet of the present invention comprises two silicone layers that are arranged side-by-side in contact with one another, with each of the silicone layers being formed from different silicone compositions having different curing speeds relative to each other. The aforementioned orientation of the layers can readily be appreciated with reference to the figures and specification of the instant application (see, e.g. Figures 1 and 2 and paragraph [0053]).

As the Examiner is well aware, to properly establish anticipation under 35 U.S.C. §102, the reference must teach each and every element of that claim. See MPEP §2131. In addition, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” See *In re Wilson*, 424 F.2d 1382, 1385 (C.C.P.A. 1970).

Delcuve discloses a double-sided silicone-coated liner (liner), which is particularly adapted for use in self-wound tapes. With reference to the figures and detailed description of Delcuve (and using the numerals therein), the liner comprises a base liner **2** (e.g. a kraft paper) having one side **16** and another side **18**. The liner further comprises a silicone coating **8** disposed on the one side **16** and a second silicone coating **6** disposed on the other side **18** of the base liner **2**. The silicone coatings **6,8** may be different in thickness and/or composition. Preferably, the base liner **2** will also be coated with clay on one or both sides **16,18** to form respective clay coating layers **3,5** disposed between the base liner **2** and the silicone coatings **6,8**.

In other words, at a minimum, the liner of Delcuve includes at least three layers, which are the silicone coatings **6,8** with the base liner 2 sandwiched between the silicone coatings 6,8 (such that the silicone coatings **6,8** are *not* in contact with one another). Preferably, the liner of Delcuve includes at least four layers, which includes the aforementioned layers and an additional clay layer **3** (or **5**) sandwiched between the base liner **2** and one of the silicone coatings **6** (or **8**). Most preferably, the liner of Delcuve includes at least five layers, which includes the aforementioned layers and one clay layer **3** sandwiched between the base liner **2** and one of the silicone coatings **6** and another clay layer **5** sandwiched between the base liner **2** and the other silicone coating **8**.

Further, by definition, and with reference to Delcuve's teachings, it is clear that the liner of Delcuve is a release sheet for an adhesive tape, *rather than* an adhesive sheet itself. Delcuve is explicit in describing a tape which employs the liner described above. The tape of

Delcuve includes a carrier **4** sandwiched between adhesive layers **12,14**. The liner described above is disposed on the tape, such that one of the adhesive layers **12,14** is in contact with one of the silicone coatings **6,8** of the liner (see, e.g. Figure 10). As such, the tape and liner of Delcuve in combination for use as a self-wound tape, includes at least six, more preferably at least seven, and most preferably at least eight, discrete layers, wherein the silicone coatings **6,8** are separated by at least one layer, e.g. by the base liner **2**, by the base liner **2** and at least one clay layer **3,5**, etc.

Yet further, while Delcuve is completely silent with regard to curing rates of the silicone coatings **6,8**, and more importantly, fails to teach or even suggest a difference in curing rates of the silicone coatings **6,8**, in the instant Office Action, the Examiner takes the position that since Delcuve teaches that the silicone coatings **6,8** (layers) may be “different”, it can be assumed that different silicone layers **6,8** will inherently possess different curing rates. As such, the Examiner opines that one layer will have a slower curing rate than the other. *However*, with regard to the rejections under 35 U.S.C. §102(b) over Delcuve, the Applicants respectfully submit that the Examiner has **not** adhered to the standards set forth in the MPEP for establishing inherent anticipation of the claims under 35 U.S.C. §102. In particular, MPEP 2112(IV.) dictates that the Examiner must provide a rationale or evidence tending to show inherency and that in providing the rationale to show inherency, “the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” MPEP 2112(IV.) citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). Further, “In relying

upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

With reference to the teachings of Delcuve, it is clear that the “different” aspect of the silicone coatings **6,8** is merely disclosed for the purpose of not limiting Delcuve to one type of silicone composition for forming each of the respective silicone coatings **6,8**. This tactical move is repeated verbatim for preventing limitation to only one type of adhesive for forming each of the respective adhesive layers **12,14** (see, e.g., C3:L34-38). This is the only instance of express language used by Delcuve to describe the silicone coatings **6,8** being different, and again, no reference to curing rates or differences thereof are described or suggested in Delcuve. One skilled in the art could construe the “difference” of the compositions in various manners, such as being from different suppliers, being from different batches of manufacture, including different solvents, having different molecular weights, etc. In other words, a difference in curing rate does not necessarily flow from the teachings of Delcuve.

This “difference” of the silicone coatings can also be construed to fit into the primary goal of Delcuve. The primary goal of Delcuve is to prevent bursting or cracking of the liner. Relative to the prior art, Delcuve presumably achieves this goal by having one of the sides of the liner being relatively porous to water vapor migration. “The silicone layer which is coated on side 16 of base liner 2 can be any type of silicone. The second silicone formulation which is to be coated on side 18, in general, and in a most preferred

embodiment, will possess **sufficient porosity** to enable water migration both in and out of the base” (see C5:L49-53; emphasis added). “The choice of the appropriate silicone formulation is **critical on the water permeable side** of the liner, and also depends upon the adhesive selected for the construction” (see C6:L15-18; emphasis added). Again, the standard for establishing anticipation is **what a reference teaches to one of skill in the art**, not what the Examiner can do to **twist and manipulate the disclosure of the reference to fit a desired interpretation**. In fact, it is clear that in the instant situation, the Examiner could not have arrived at his conclusions without using the instant claims as a roadmap (a practice commonly referred to as hindsight reconstruction).

In contrast to the primary goal of Delcuve, a primary goal of the present invention is to provide the silicone-based adhesive sheet whereby a smooth base and a base having irregularities in its surface can be bonded in a satisfactory manner. As such, the thickness of the bonded layer is nearly uniform. With reference to the instant application, these bases are generally a semiconductor chip and a chip attachment component, and uniformity of the bonded layer is useful for preventing inconveniences during subsequent wire bonding processes (see, e.g. paragraphs [004] and [0060]). It is believed that the difference in curing rate between the first and second layers allows such goals of the present invention to be achieved. For example, one layer can be bonded and cured to one of the bases with the other layer present, and the other layer present can then be subsequently bonded and cured to the other base some time later.

In view of the foregoing, the Applicants respectfully submit that claim 1 as amended is novel over the prior art, and therefore, the §102(b) rejection is overcome. Specifically, at a minimum, Delcuve fails to disclose, teach, or even suggest a silicone adhesive sheet having **two silicone layers** disposed adjacent and **in contact with one another** as claimed in the present application. In addition, Delcuve fails to disclose, teach, or even suggest a silicone adhesive sheet formed from silicone compositions **having different curing speeds** as claimed in the present application. Further, although not necessary in view of the current rejections for claim 1, it is clear that no 35 U.S.C. §103 rejection would be proper.

Examiner's Claim Interpretations and Rejections - 35 USC §103

Claims 2 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Delcuve. Since claims 2 and 4 depend from claim 1, the Applicants respectfully traverse this rejection on the basis that Delcuve fails to teach each and every element of claim 1, as described above. As such, a *prima facie* case of obviousness is now moot and has not been established with regard to claims 2 and 4.

The Applicants respectfully submit that claim 1 is both novel and non-obvious, in view of the disclosure, teachings, and suggestions of the prior art such that claim 1 as amended, as well as the claims that depend therefrom, are in condition for allowance. If any additional fees are necessary to respond to the outstanding Office Action, you are hereby authorized to charge such fees to Deposit Account No. 08-2789 in the name of Howard & Howard.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS

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Date

/DAVID M. LAPRAIRIE/

David M. LaPrairie, Registration No. 46,295

Howard and Howard Attorneys, P.C.

The Pinehurst Office Center, Suite 101

39400 Woodward Ave.

Bloomfield Hills, MI 48304-5151

(248) 723-0442